

Arizona Education Learning and Accountability (AELAS) FY 2017 Projects



Presented to:

Information Technology
Authorization Committee

May 25, 2016

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Chief Information Officer

Priorities for FY 2017

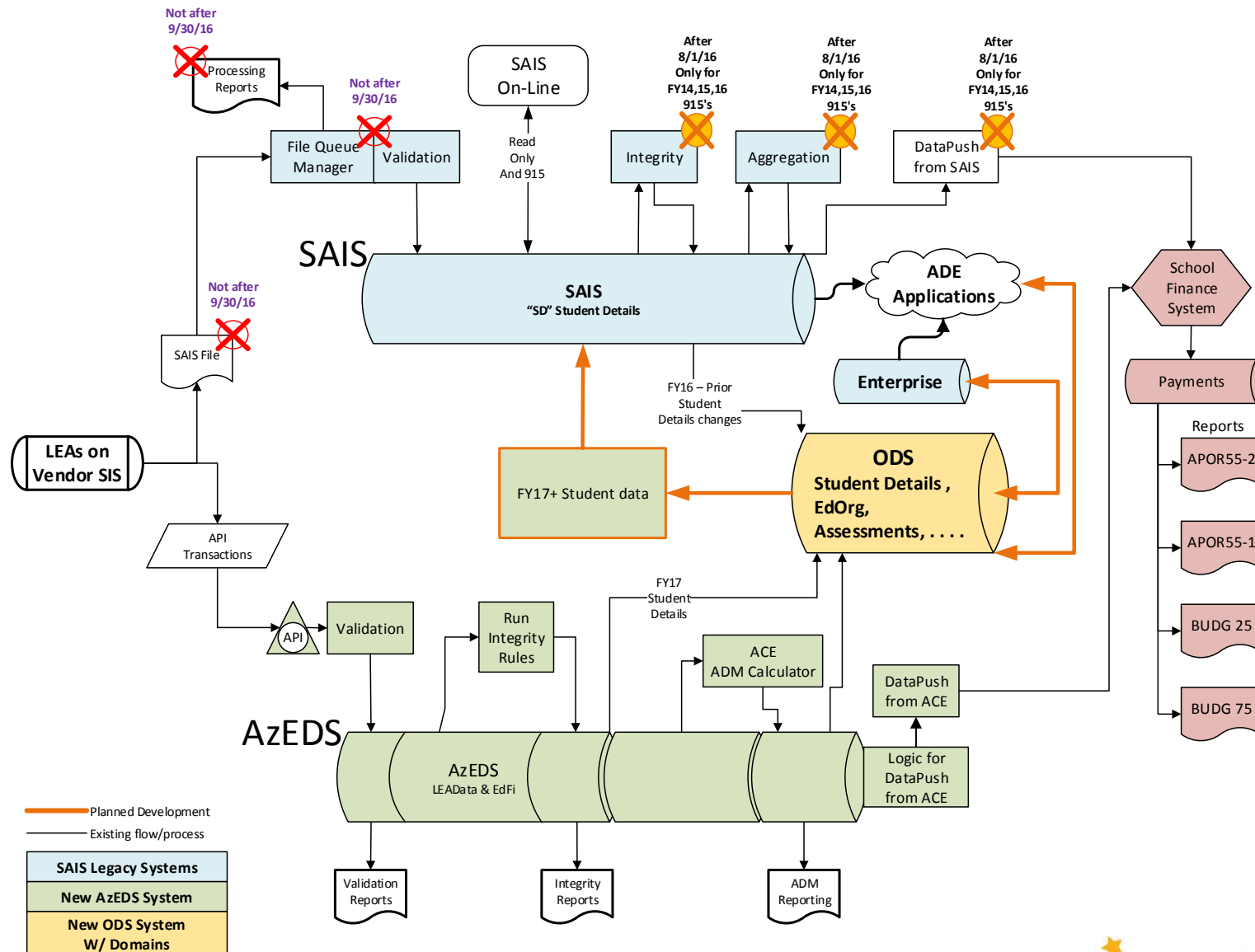
- Complete SALS student replacement and decommissioning
 - APOR and CHAR will not be completed in FY 2017
 - Business requirements for AELAS School Finance applications
- Build internal connections to AzEDS to reduce burden on LEAs
 - For example, CTE (Continuing Technical Education) data that with minor additions to the API, will be resolved from SIS submissions to AzEDS, so that LEAs no longer submit the data separately through the CTE applications.
- Ensure proper support and management of overall project and newly-developed tools
- Continue implementation of opt-in tools to interested LEAs
 - Statewide Student Information System (Synergy by EduPoint)

Program Support Office - \$700,000

Production Services - \$2,560,000

- Program Support Office
 - Interface with local school districts
 - Financial accountability
 - Contract oversight
 - Software development management
 - Third-party independent assessment
- Production Services
 - Hardware Maintenance and Software license renewals
 - Continued focus on Support center
 - Network and Infrastructure improvements
 - Release Management, Patch administration, Systems security, Monitoring, Server Maintenance, Administration and Network operations

FY 2017 Student Data Systems



AELAS support costs

- Increased external-facing systems require manpower to perform day-to-day operation and management of existing services
- ADE IT has been capturing costs to maintain complex system like AELAS since FY 2013
- State legislature has not included funding for ongoing support
 - SAIS fell into disrepair because of lack of funding and technology advancements
 - AELAS will suffer same fate with same treatment
- ADE will not squander the investment

FY 2017 support costs

- Ongoing program and financial management
- Network and infrastructure improvements
 - release management, patch administration, systems security, monitoring, server maintenance, administration, and network operations,.
- Continued emphasis on support center
- Hardware maintenance and software license renewals

Opt-In Statewide Student Information System - **\$180,000**

- Minimal staffing to support renewal of contract activities.
- No additional implementations beyond those already planned (15)

School Finance - \$740,000

- Completion of Current Year Funding (CYF) development
 - Quality assurance testing and remediation
 - User acceptance testing with School Finance and remediation of findings
 - Deployment and warranty support of new code, reports and processes
- Development and modification of associated reports development due to CYF changes.
- Discovery phase work with business process engineering efforts for the re-write of the APOR, CHAR, and Budget systems
- Design based on Discovery phase information is documented, and reviewed with School Finance area.

Arizona Education Data Standards (AzEDS) - \$3,120,000

- **AzEDS**
 - Migration of AzEDS to use ODS (Operational Data Store) data,
 - Deploy API version 2.3
 - Develop API version 2.4 specification and deploy,
 - Develop Multi-year support functionality in AzEDS/ACE (ADM Calculation Engine)/DataPush,
 - Develop 915 processes, communicate to Vendors/LEAs, Deploy
 - Complete development and deployment of > all business rules, > reports
 - AzEDS Roll-out
 - Team to support July, August, September final LEA migrations to AzEDS
- **ODS Data and Services**
 - Development of services, Data Structures, ETL support, and support of migrating applications
- **OEMS**
 - Minimal enhancements to system, maintenance of system
- **Legacy migration / Infrastructure**
 - Replace/move Calendar webapp,
 - Split Contacts and separate common login from Enterprise
 - Decommissioning hardware, supporting movement of applications to Cloud (Azure)

Transition to AzEDS

All Metrics as
of 5/11/2016

		Counts for LEAs migrating to AzEDS						All Metrics as of 5/11/2016	
Status Description (Multiple)		Closed, Future, or Inactive LEAs filtered							
5/11/16	Data from 5 AM								
Row Labels	LEAs	In Implementation	% Implementing	LEAs Submitting	% Implementation complete	% of Total submitting	Incomplete Implementations	Not yet Implementing	
Apex	6	6	100%	6	100%	100%	0	0	
AZDJC	1	1	100%	1	100%	100%	0	0	
Connexus	1	1	100%	1	100%	100%	0	0	
Edupoint	91	48	53%	39	81%	53%	9	43	
FlipSwitch	1	1	100%	1	100%	100%	0	0	
Hane Solutions	10	10	100%	10	100%	100%	0	0	
Illuminate	2	2	100%	2	100%	100%	0	0	
InfiniteCampus	13	8	62%	8	100%	62%	0	5	
JupiterEd	2	2	100%	2	100%	100%	0	0	
PowerSchool	166	157	95%	157	100%	95%	0	9	
Schoolmaster	318	271	85%	260	96%	85%	11	47	
Statewide SIS	47	24	51%	24	100%	51%	0	23	
Tyler V10	1	1	100%	1	100%	100%	0	0	
Unknown	1	-	0%	-	0%	0%	0	1	
Grand Total	660	532	81%	512	96%	81%	20	128	
		+ 3 LEAs since Yesterday		+ 4 LEAs for the week					
				Green Highlights changes from last report					

Transition to AzEDS

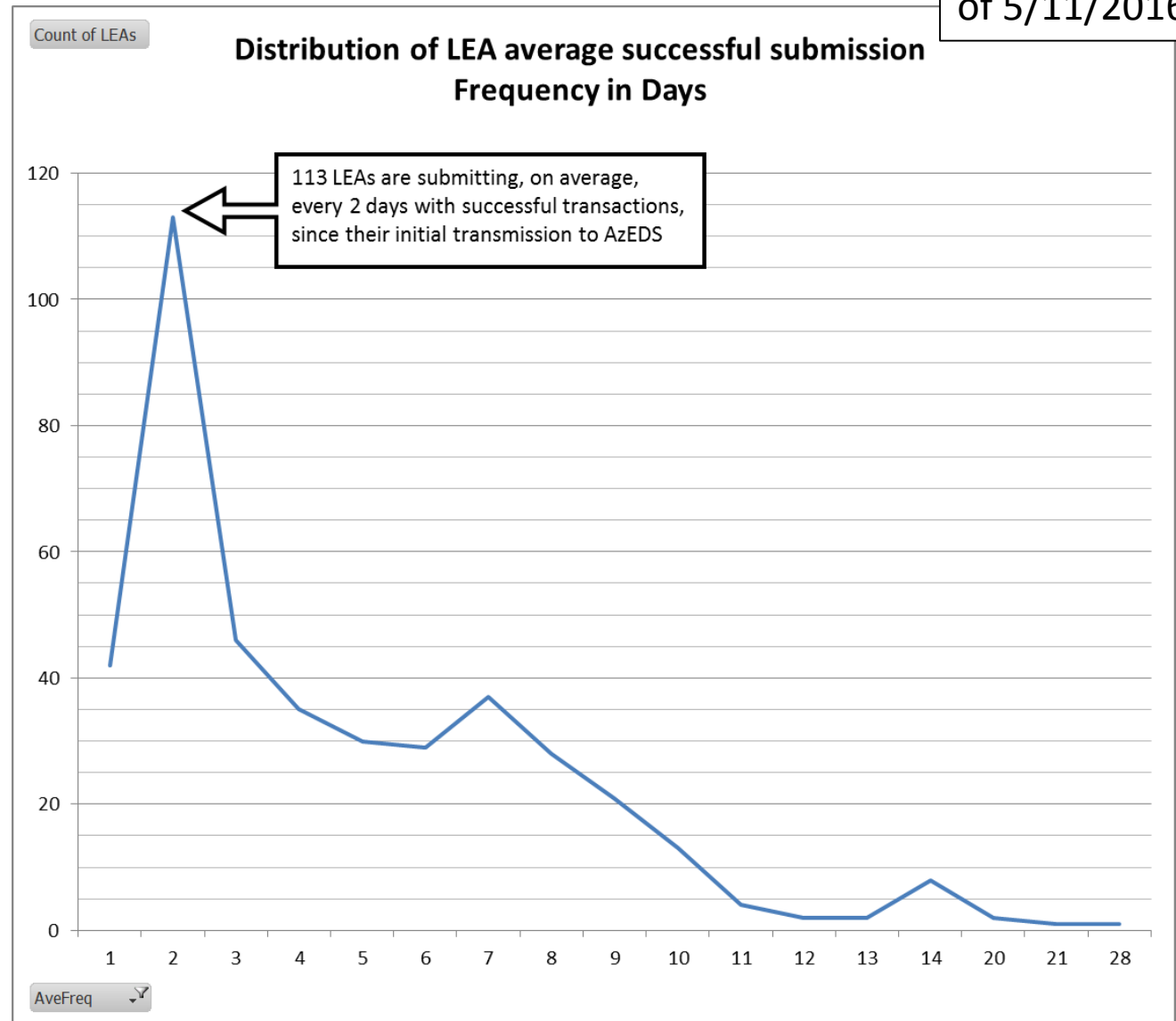
All Metrics as
of 5/11/2016

5/11/16	Data from 5 AM			Student Count distribution:		
Row Labels	LEAs	In Implementation	% of Total submitting	Vendor % to total	Vendor % on AzEDS	Vendor % on SAIS
Apex	6	6	100%	0.22%	0.22%	0.00%
AZDJC	1	1	100%	0.04%	0.04%	0.00%
Connexus	1	1	100%	0.24%	0.24%	0.00%
Edupoint	91	48	53%	38.85%	17.99%	20.87%
FlipSwitch	1	1	100%	1.16%	1.16%	0.00%
Hane Solutions	10	10	100%	0.10%	0.10%	0.00%
Illuminate	2	2	100%	1.66%	1.66%	0.00%
InfiniteCampus	13	8	62%	13.32%	4.74%	8.59%
JupiterEd	2	2	100%	0.02%	0.02%	0.00%
PowerSchool	166	157	95%	19.92%	19.65%	0.27%
Schoolmaster	318	271	85%	15.40%	13.28%	2.12%
Statewide SIS	47	24	51%	7.80%	1.36%	6.44%
Tyler V10	1	1	100%	1.27%	1.27%	0.00%
Unknown	1	0	0%	0.00%	0.00%	0.00%
Grand Total	660	532	81%	100.00%	61.72%	38.28%

Frequency of submission to AzEDS

All Metrics as
of 5/11/2016

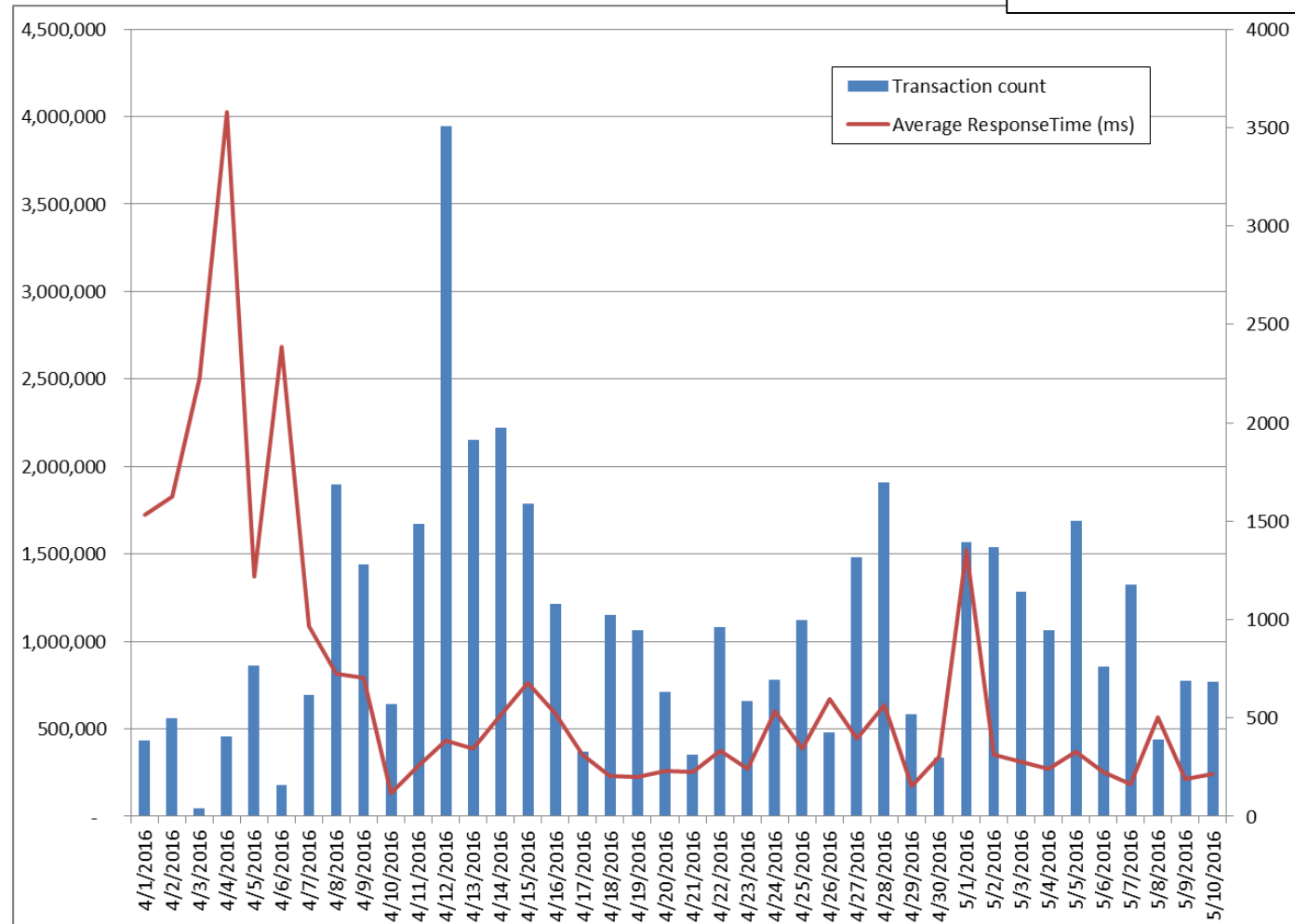
Ave. Freq. of Submission by LEAs	Count of LEAs
1	42
2	113
3	46
4	35
5	30
6	29
7	37
8	28
9	21
10	13
11	4
12	2
13	2
14	8
20	2
21	1
28	1
Grand Total	414



Response time to AzEDS submissions

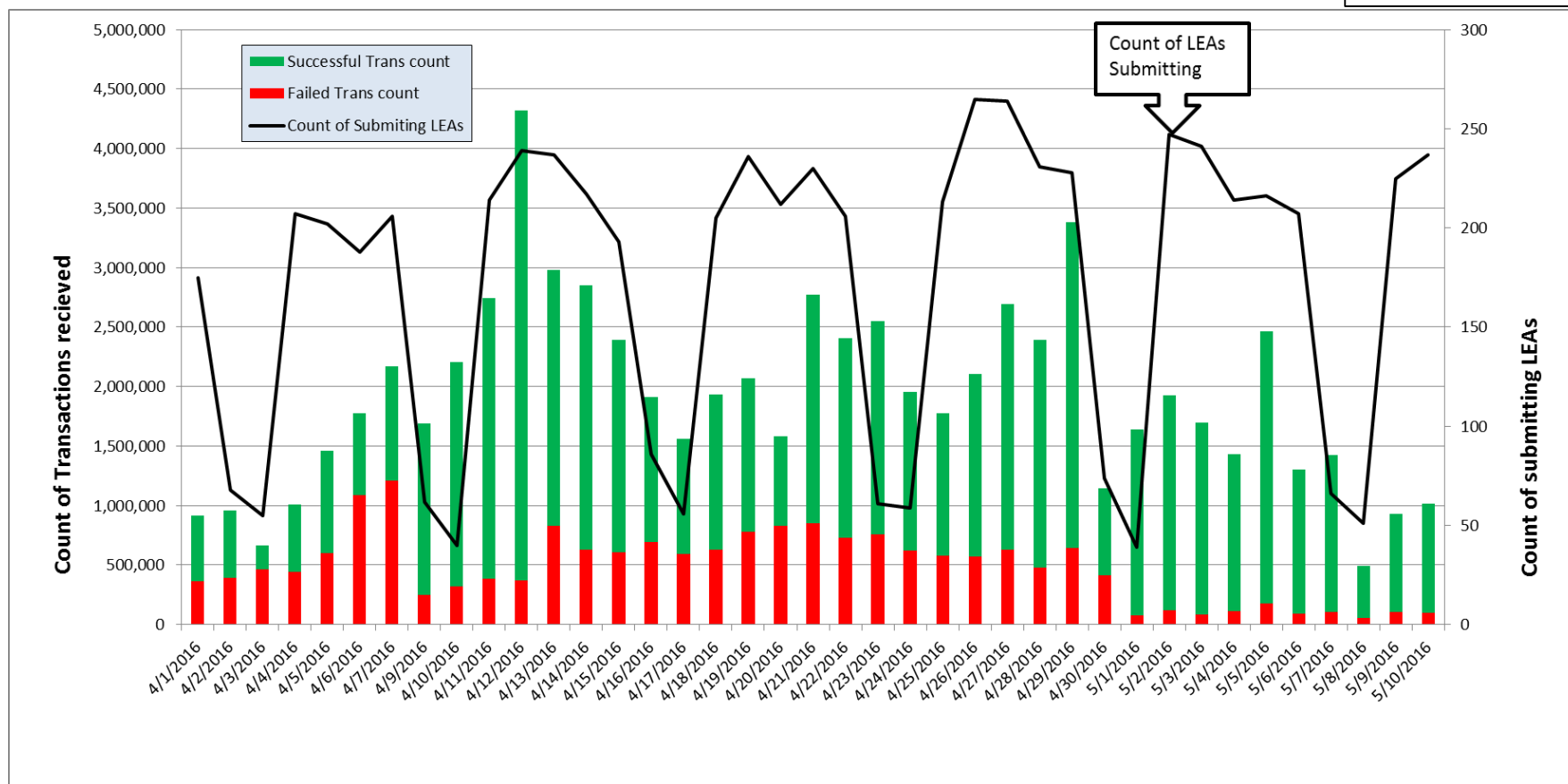
All Metrics as of 5/11/2016

Date	Transaction count	Average ResponseTime (ms)
4/1/2016	433,496	1533.696
4/2/2016	560,733	1626.435
4/3/2016	44,433	2228.000
4/4/2016	458,699	3577.870
4/5/2016	863,696	1221.130
4/6/2016	181,296	2383.565
4/7/2016	696,730	966.478
4/8/2016	1,895,408	722.478
4/9/2016	1,440,731	706.870
4/10/2016	643,946	118.870
4/11/2016	1,673,557	257.435
4/12/2016	3,946,459	384.833
4/13/2016	2,151,577	344.083
4/14/2016	2,221,272	512.064
4/15/2016	1,789,320	676.750
4/16/2016	1,216,798	525.240
4/17/2016	370,356	315.222
4/18/2016	1,151,030	206.043
4/19/2016	1,063,546	200.870
4/20/2016	709,310	233.042
4/21/2016	353,027	228.000
4/22/2016	1,082,409	336.000
4/23/2016	658,755	239.261
4/24/2016	778,405	535.864
4/25/2016	1,124,226	342.826
4/26/2016	477,574	595.739
4/27/2016	1,478,649	395.667
4/28/2016	1,908,324	565.400
4/29/2016	582,986	152.542
4/30/2016	334,790	304.217
5/1/2016	1,568,172	1350.167
5/2/2016	1,536,508	315.417
5/3/2016	1,285,895	279.750
5/4/2016	1,067,084	242.417
5/5/2016	1,688,933	331.500
5/6/2016	856,249	223.833
5/7/2016	1,321,840	163.333
5/8/2016	437,570	505.043
5/9/2016	777,749	192.292
5/10/2016	771,970	215.000
Grand Total	43,603,508	646.799



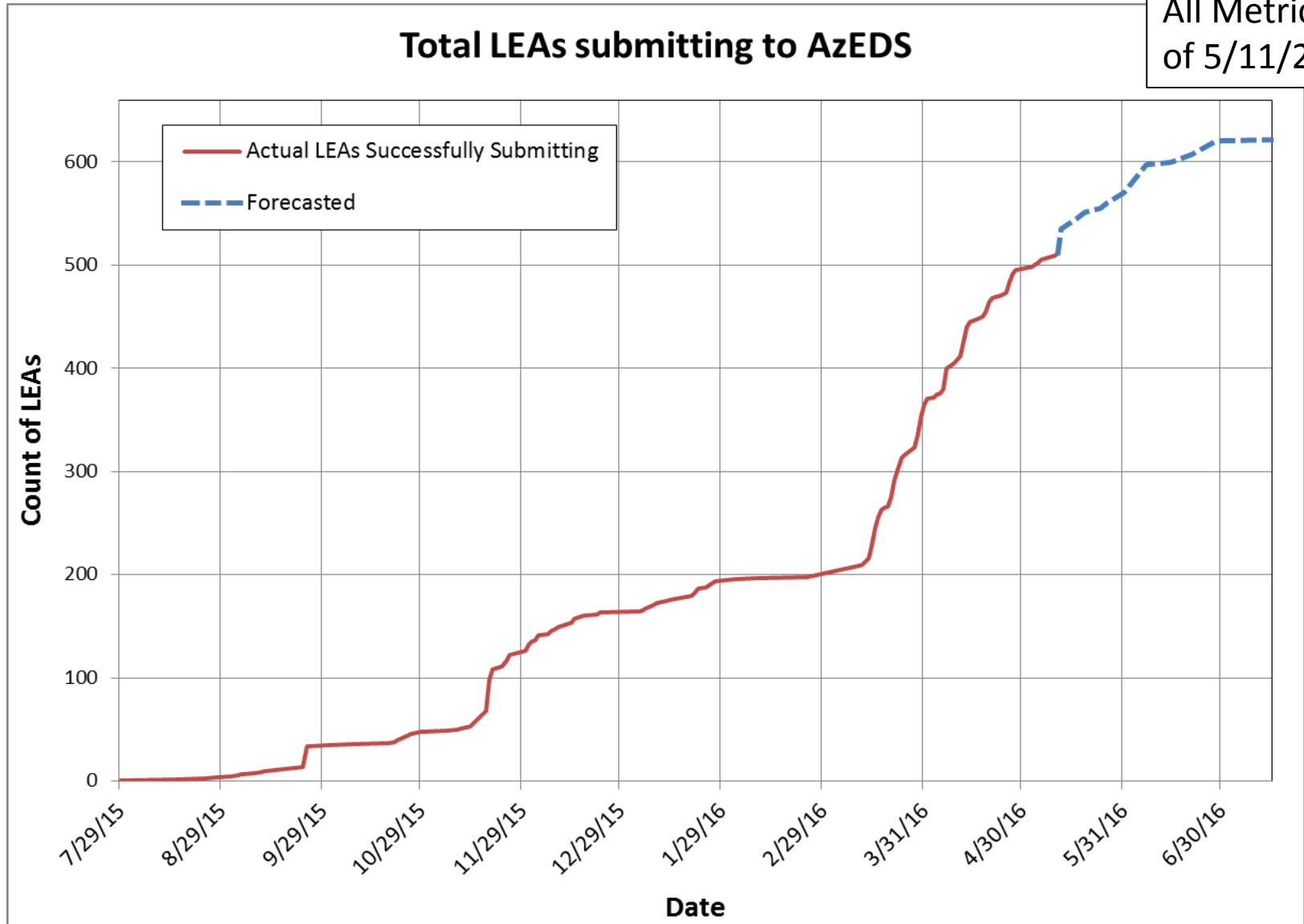
Successful submissions to AzEDS

All Metrics as
of 5/11/2016



Migration of LEAs submitting to AzEDS

All Metrics as
of 5/11/2016



SAIS to AzEDS comparisons

	SAIS	AzEDS
LEAs submitting data to system (59 LEAs are currently transitioning from SAIS to AzEDS)	142	518
Number of rules that may be updated or changed	0	315
Time required to run Integrity (validation of data)	2 days	Less than 4 hours
Time required to run end-of-month Integrity (statewide aggregation)	5 days	Less than 5 hours
Time required to recalculate statewide ADM	5 days	<1 hour
Ability for LEAs to audit transaction history	Not Auditable	Auditable
Total transactions processed in last 30 days	15,000,000	31,000,000

AELAS

Current known risks and mitigation

- Size and magnitude of ADE IT project
 - ADE is implementing process checks and code review processes in each phase of the project to ensure immediate identification of any issues and to audit the progress and deliverables to ensure quality and confirm on-time delivery
 - Team is utilizing industry best practices, as well as highly skilled and senior developers to close the gap in our experience for this type of effort
- Data usage patterns are changing
 - ADE is running performance tests
 - Piloted implementation plan to allow ADE to identify new patterns, develop mitigation strategies and react quickly to changes in data loads
- Reliance on outside vendors
 - Maintain constant communication through meetings, scope tracking, management and status reports and re-baseline as necessary
- Potentially difficult technical challenges and determination of how to approach challenge
 - ADE has implemented an architectural review team to maintain adherence to overall AELAS architecture and design requirements

FY 2016 AELAS closed projects

Project Name	Accomplishments
Common Educational Data Services (CEDS)	<ul style="list-style-type: none"> • Data quality confirmation testing, and remediation as needed completed for Student Demographic, Student Attendance, Student Program participation and Student Enrollments domains • Enterprise services framework developed and tested • Initial Services for Educational Organization data delivered to ADE IT teams, Service(s), Training, example projects and configuration samples • Development and deployment of initial Student Demographics data service completed, training and further activities rolled into SDS project for 2017
AzDASH SLDS (Student Longitudinal Data Services)	<ul style="list-style-type: none"> • Completed development for reports utilize data from Operational Data Store • Data refreshed for 2015 for Enrollments and Withdrawals matched the test cases cent percent. • Teacher dashboard - data refresh complete • Data Refresh for Enrollments, Withdrawals and Absences • STC (Student-Teacher-course Connection) Data refreshed • AIMS science data refresh - Fall 2015 • New Teachers for 2016 are able to view their Teacher Dashboard
AELAS Opt In Teacher and Learning Tools	<ul style="list-style-type: none"> • Developed and delivered Self-registration for Events • Developed transcripts and certificates supporting appropriate Event types • Developed credit card processing to charges on Events • Integrated Event Management System with Blackboard • Developed waitlists and notifications functionality within Event Management System • Deployed Event Management System to production on 8/4/15
Organization Entity Management System (OEMS)	<ul style="list-style-type: none"> • Developed and deployed Workflows for change approvals by correct business area roles • Developed and deployed code to sync OEMS data back to Enterprise to support legacy applications • Developed and deployed new User Web Interface • Developed and deployed ETL functions to populate ODS EdOrg domain with data

AELAS cost estimates for ongoing operations

PROJECT NAME	FY2017	Headcount (FTE)
AZDash Ongoing Support and Maintenance of Student Data Stores and Data Refreshes of AZDash	\$400,000	3.0
ADEConnect Maintain 24 hour access to ADE systems and reports for all stakeholders	\$240,000	2.0
AELAS Program Support Office (PSO) Program Level Management of AELAS Development and Operations	\$700,000	8.0
AELAS Operations Services Ongoing Operations Support of AELAS Infrastructure	\$1,920,000	15.0
OEMS AzEDS Contact and Organization Management Support	\$0	0.0
AELAS Operations subtotal	\$3,260,000	28.0
AELAS Ed-Fi (AzEDS) Support, Maintenance, diagnostics and repairs of software issues	\$365,000	4.0
School Finance Technical support, verification, maintenance of School payment engines	\$435,000	5.0
Prop 301 Funding subtotal	\$800,000	9.0
TOTAL	\$4,060,000	37.0

AELAS cost estimates for ongoing operations

PROJECT NAME	FY2018
AZDash Ongoing Support and Maintenance of Student Data Stores and Data Refreshes of AZDash	\$750,000
ADEConnect Maintain 24 hour access to ADE systems and reports for all stakeholders	\$700,000
AELAS Program Support Office (PSO) Program Level Management of AELAS Development and Operations	\$750,000
AELAS Operations Services Ongoing Operations Support of AELAS Infrastructure	\$2,200,000
OEMS AzEDS Contact and Organization Management Support	\$450,000
AELAS Operations subtotal	\$4,850,000
AELAS Ed-Fi (AzEDS) Support, Maintenance, diagnostics and repairs of software issues	\$600,000
School Finance Technical support, verification, maintenance of School payment engines	\$400,000
Required SAIS Replacement Support Funding subtotal	\$1,000,000
TOTAL	\$5,850,000

Thank You



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